

## ABSTRACT OF THE DISCLOSURE

A separator assembly for a fuel cell stack includes a diffusion layer including a porous metal body for diffusing and supplying fuel or oxidizer to an electrode of the fuel cell stack, and a separator including a metal plate which is disposed adjacent to the diffusion layer, and which is provided for separating the fuel and the oxidizer from each other. The diffusion layer and the separator are welded together by laser welding. Flow passage partitions of the metal forming the diffusion layer, which are formed by melting the metal by irradiation by a laser beam and by solidifying the metal, may be formed in the diffusion layer so as to define a flow passage for the fuel or oxidizer in the diffusion layer.